

# Santee-Lynches Area Base Labor Market Analysis



South Carolina  
Department of  
Commerce  
Labor Market Information



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## EXECUTIVE SUMMARY

### Population

*The Santee-Lynches area's population growth has been slower than the state's in recent years.*

Future population growth is expected to continue to lag behind the state rate.

*The Santee-Lynches area attracts workers predominantly from within its borders.*

Over 40% live in Sumter County.

### Income

*Per capita income growth has exceeded the state's and nation's.*

However, the Santee-Lynches area's per capita income remains below the state level.

The Santee-Lynches area's average wages are not higher than those of the state in any major occupational group.

### Education

*The number of degrees awarded by area post-secondary institutions has increased.*

The greatest increase has been in the area of business management.

### Occupations

*These occupational groups are expected to have faster growth in the Santee-Lynches area than in the state:*

Food preparation and serving related, building and grounds cleaning and maintenance, and construction and extraction.

*Requirements for the Santee-Lynches area's workers are expected to grow in the following levels of education and experience:*

Work experience in a related field, postsecondary vocational award, associate's degree, bachelor's degree, and master's degree or higher.

### Industry

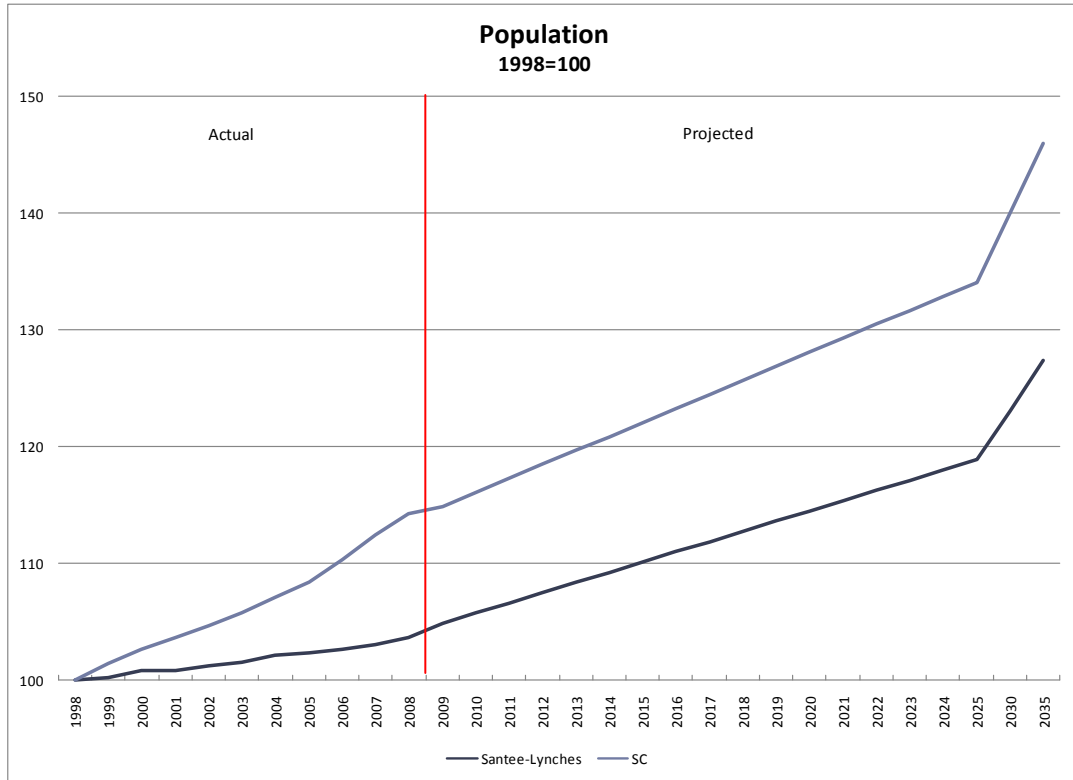
*Sectors rated as having high potential in various parts of the Santee-Lynches area are as follows:*

Building construction; heavy and civil engineering construction; fabricated metal product manufacturing; machinery manufacturing; transportation equipment manufacturing; merchant wholesalers, durable goods; truck transportation; professional, scientific and technical services; management of companies and enterprises; and ambulatory health care services.

## POPULATION

### Growth

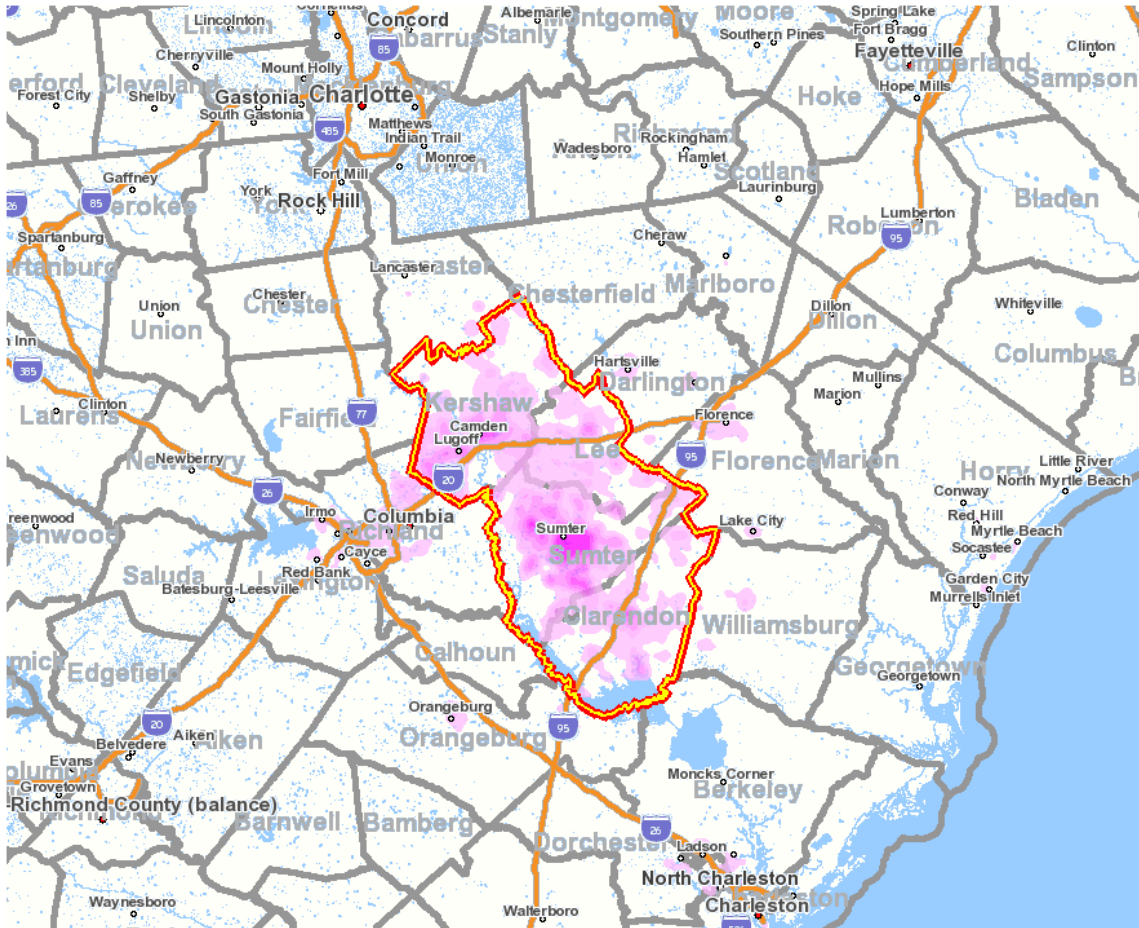
The Santee-Lynches area's 2008 population was 216,089. The area population has grown by 3.6% since 1998, compared to 14.3% for South Carolina. Future population growth is expected to continue to lag behind state levels.



Source: U.S. Census Bureau (estimates) and SC Budget & Control Board/Office of Research and Statistics (projections).

## LABORSHED

The map below shows where Santee-Lynches area workers come from (in 2006, latest available data). The Santee-Lynches area draws over 70% of its workers from within its borders.



Source: U.S. Census Bureau, Local Employment Dynamics.

## Characteristics of Workers

### Age of Workers:

30 or younger	24.6%
31 to 54	57.8%
55 or older	17.6%

### Earnings of Workers:

\$1,200 per month or less	32.4%
\$1,201 to \$3,400 per month	46.7%
More than \$3,400 per month	20.9%

**States Where Workers Live:**

South Carolina	98.9%
North Carolina	0.6%
All other locations	0.5%

**Counties Where Workers Live:**

Sumter	41.4%
Kershaw	17.2%
Clarendon	7.9%
Lee	5.6%
Richland	4.8%
Florence	2.3%
Lexington	1.8%
Orangeburg	1.7%
Darlington	1.6%
Horry	1.4%
All other locations	14.4%

**Cities Where Workers Live:**

Sumter, SC	16.0%
Camden, SC	2.6%
Lugoff, SC	1.7%
Manning, SC	1.5%
South Sumter, SC	1.3%
Lakewood, SC	1.2%
Bishopville, SC	1.1%
Columbia, SC	1.0%
Dalzell, SC	1.0%
Privateer, SC	0.9%
All other locations	71.7%

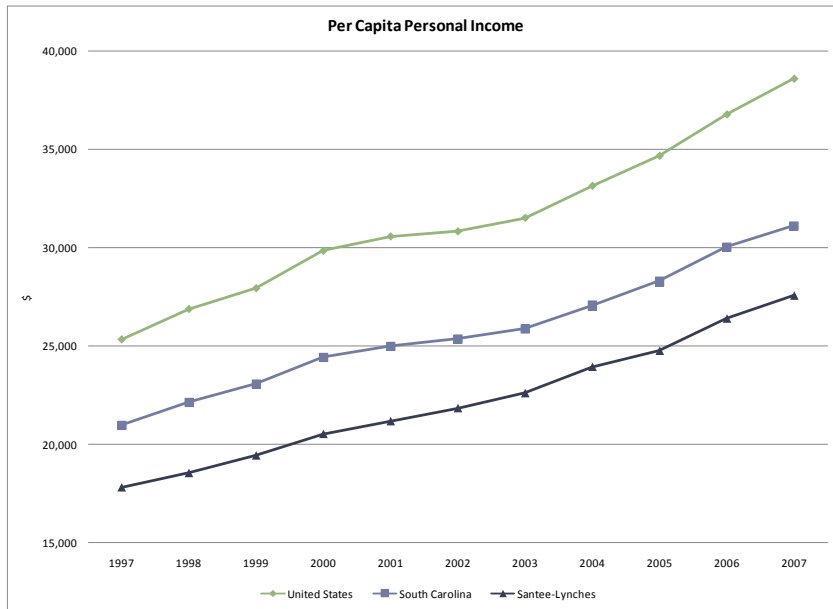
*Source: U.S. Census Bureau, Local Employment Dynamics.*



## INCOME

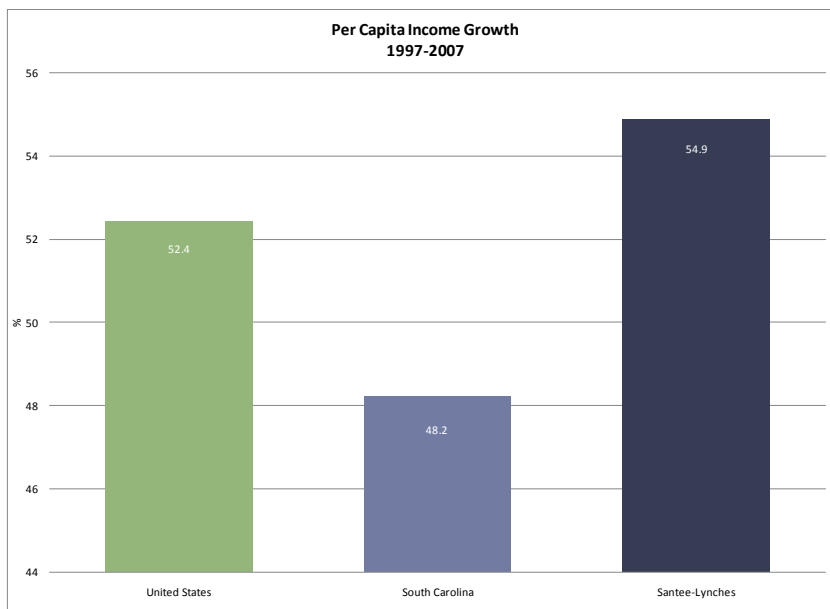
### Per Capita Income

The Santee-Lynches area's per capita income increased steadily from 1997 to 2007 but remained below the state level.



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

The Santee-Lynches area's per capita income growth has exceeded both South Carolina's and the United States'. As a result, the area has made up some ground on the state and nation in this key measure of economic vitality.



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

## Wages by Industry

The Santee-Lynches area's average wages are below those of South Carolina (\$596 vs. \$697 in 2008). Average wages were up 17% in the Santee-Lynches area over the past five years. All major sectors had growth over the past five years, led by information.

Industry	NAICS Code	2008 Average Weekly Wage (\$)	2003 Average Weekly Wage (\$)	% Change
Total, Private and Government		596	510	17
Construction	23	727	569	28
Manufacturing	31-33	743	642	16
Retail Trade	44-45	422	357	18
Transportation and Warehousing	48-49	637	527	21
Information	51	910	672	35
Finance and Insurance	52	720	645	12
Real Estate and Rental and Leasing	53	455	356	28
Administration & Support & Waste Management & Remediation Services	56	427	352	21
Arts, Entertainment, and Recreation	71	286	236	21
Accommodation and Food Services	72	215	190	13
Other Services (Except Public Administration)	81	414	371	12
Federal Government		768	662	16
State Government		654	575	14
Local Government		629	518	21

Source: U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

## Wages by Occupation

Average wages in the Santee-Lynches area are not higher than South Carolina's in any major occupational groups.

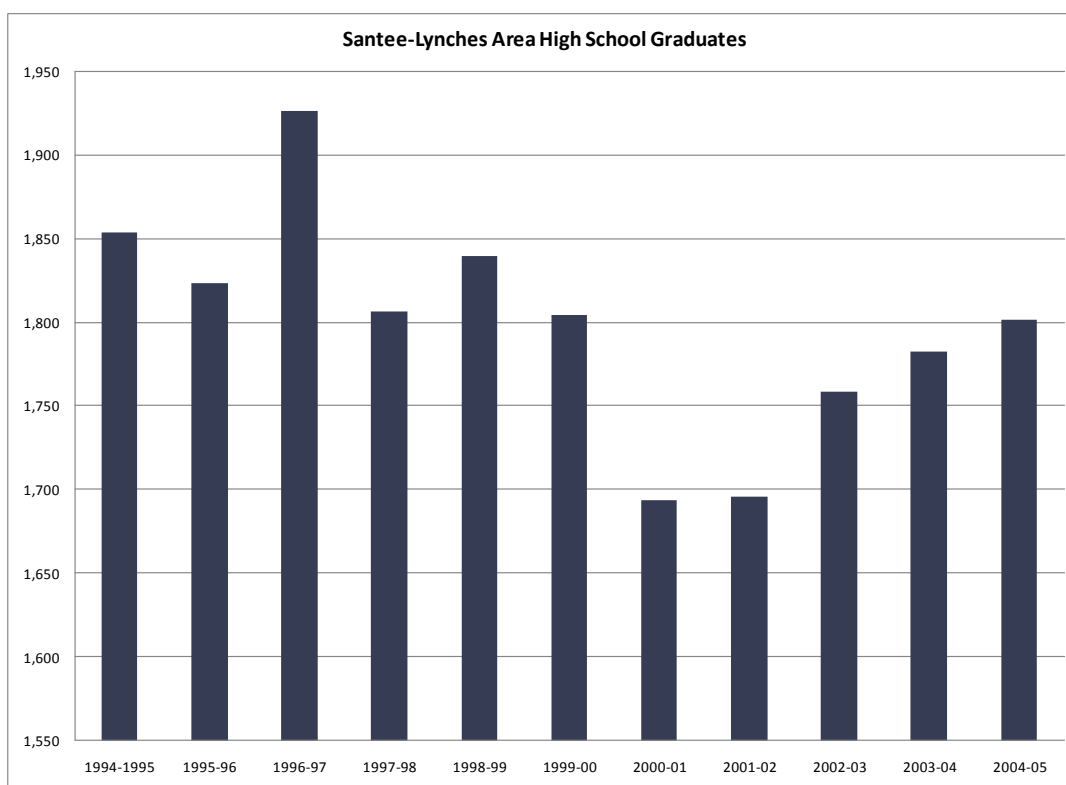
Occupation	2009 Santee-Lynches Area Median Hourly Wage (\$)	2009 SC Median Hourly Wage (\$)
Management occupations	17.47	23.49
Business and financial operations occupations	17.11	19.14
Computer and mathematical science occupations	22.06	25.83
Architecture and engineering occupations	24.15	28.98
Life, physical and social science occupations	17.14	21.12
Community and social services occupations	12.69	12.94
Legal occupations	18.53	25.39
Education, training and library occupations	21.11	22.66
Arts, design, entertainment, sports and media occupations	9.80	12.27
Healthcare practitioners and technical occupations	27.34	28.56
Healthcare support occupations	8.87	10.74
Protective service occupations	13.64	14.37
Food preparation and serving related occupations	7.72	8.18
Building and grounds cleaning and maintenance occupations	7.70	8.75
Personal care and service occupations	7.28	8.41
Sales and related occupations	9.29	11.00
Office and administrative support occupations	11.46	13.06
Farming, fishing, and forestry occupations	10.29	10.85
Construction and extraction occupations	12.11	14.10
Installation, maintenance and repair occupations	15.05	16.19
Production occupations	13.58	14.75
Transportation and material moving occupations	11.50	12.65

Source: Economic Modeling Specialists, Inc.

## EDUCATION

### High School Graduates

From 1995 to 2005 (latest data available), the number of Santee-Lynches area students receiving high school diplomas dropped by 52—or 3%. In South Carolina, on the other hand, the number of high school diplomas increased 9% from 1995 to 2005. A total of 1,802 people received high school diplomas in the Santee-Lynches area in 2005. The Santee-Lynches area had 111 fewer 12<sup>th</sup> grade students in 2004-05 than in 1994-95. Also, the number of students not passing the exit exam who received a certificate of completion instead of a diploma increased by 174 (to 235) over the 1995-2005 period.



Source: National Center for Education Statistics.

## Higher Education Graduates

Over 1,400 more students graduated from higher educational institutions in the Santee-Lynches area in 2007 than in 1997, an increase of 14%. The greatest numerical increase was in business management fields.

Program	1997	2007	Change	% Change
Agriculture, agriculture operations, and related sciences	16	-	-	-
Area, ethnic, cultural, and gender studies	10	25	15	150
Biological and biomedical sciences	462	481	19	4
Business, management, marketing, and related support services	1,614	2,192	578	36
Communication, journalism, and related programs	239	468	229	96
Computer and information sciences and support services	147	202	55	37
Construction trades	4	10	6	150
Education	1,284	1,262	-22	-2
Engineering technologies/technicians	154	163	9	6
Engineering	294	319	25	9
English language and literature/letters	285	233	-52	-18
Family and consumer sciences/human sciences	122	310	188	154
Foreign languages, literatures, and linguistics	83	70	-13	-16
Health professions and related clinical sciences	1,260	1,389	129	10
Social sciences and history	675	780	105	16
Legal professions and studies	308	303	-5	-2
Liberal arts and sciences, general studies and humanities	675	425	-250	-37
Library science	192	183	-9	-5
Mathematics and statistics	120	115	-5	-4
Mechanic and repair technologies/technicians	113	201	88	78
Multi/interdisciplinary studies	44	87	43	98
Natural resources and conservation	22	10	-12	-55
Parks, recreation, leisure, and fitness studies	164	288	124	76
Personal and culinary services	7	37	30	429
Philosophy and religious studies	32	57	25	78
Physical sciences	172	134	-38	-22
Precision production	88	117	29	33
Psychology	398	416	18	5
Public administration and social service professions	367	379	12	3
Science technologies/technicians	4	-	-	-
Security and protective services	368	380	12	3
Theology and religious vocations	312	310	-2	-1
Visual and performing arts	224	355	131	58
TOTAL	10,259	11,701	1,442	14

Source: National Center for Education Statistics (Integrated Post Secondary Education System).

*Data for these schools: Allen University, Benedict College, Central Carolina Technical College, Claflin University, Coker College, Columbia College, Columbia International University, Florence-Darlington Technical College, Francis Marion University, Lutheran Theological Seminary, McLeod Regional Medical Center School of Medical Technology, Morris College, Northeastern Technical College, Orangeburg-Calhoun Technical College, South Carolina State University, South University, Southern Methodist College, University of South Carolina-Columbia, University of South Carolina-Lancaster, University of South Carolina-Sumter, Williamsburg Technical College.*

## OCCUPATIONS

### Occupational Projections

The following occupational groups are projected to grow faster in the Santee-Lynches area than in the state:

- Food preparation and serving related
- Building and grounds cleaning and maintenance
- Construction and extraction

See **Appendix A** for detailed occupational information.

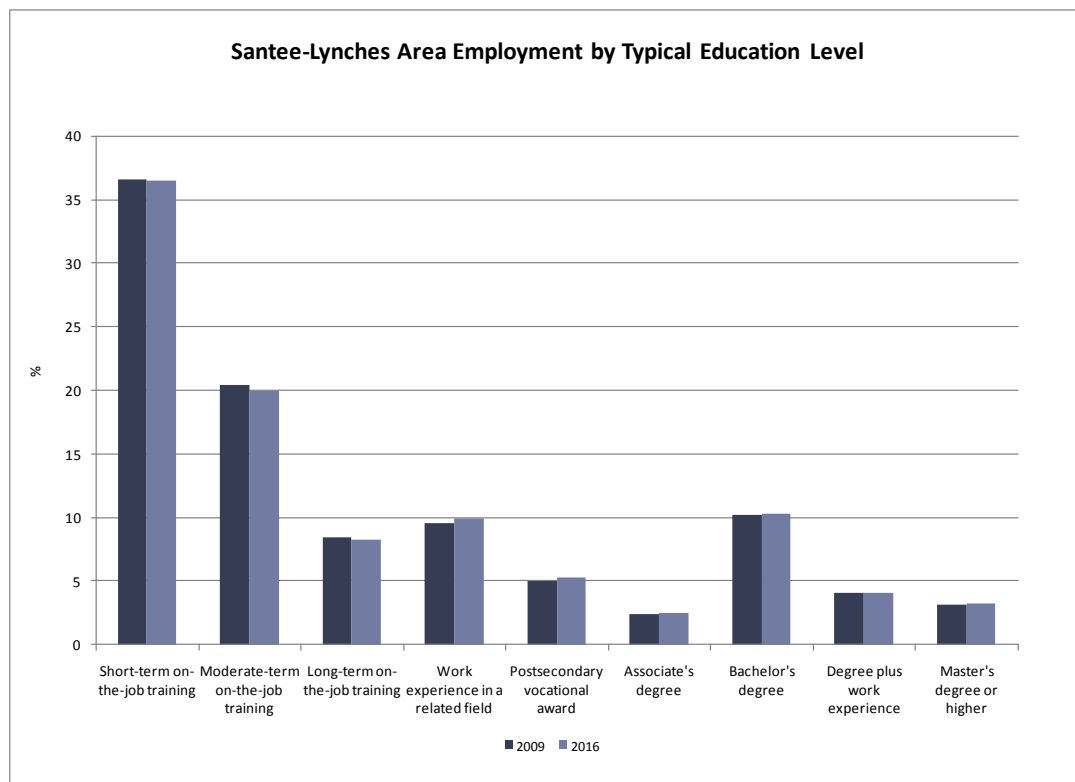
Occupation	2009-2016 Santee-Lynches Area Projected Growth (%)	2009-2016 SC Projected Growth (%)
Management occupations	12	13
Business and financial operations occupations	14	15
Computer and mathematical science occupations	14	15
Architecture and engineering occupations	10	11
Life, physical and social science occupations	10	10
Community and social services occupations	7	9
Legal occupations	8	17
Education, training, and library occupations	2	10
Arts, design, entertainment, sports and media occupations	9	13
Healthcare practitioners and technical occupations	14	17
Healthcare support occupations	15	20
Protective service occupations	10	10
Food preparation and serving related occupations	10	9
Building and grounds cleaning and maintenance occupations	23	18
Personal care and service occupations	5	6
Sales and related occupations	14	16
Office and administrative support occupations	5	8
Farming, fishing, and forestry occupations	10	6
Construction and extraction occupations	13	12
Installation, maintenance and repair occupations	8	12
Production occupations	-3	-1
Transportation and material moving occupations	4	7

Source: Economic Modeling Specialists, Inc.

## Occupational Education Requirements

Occupational growth trends show that education and training requirements are generally increasing. This is reflected in the projected growth of occupations such as engineers, business professionals, and healthcare practitioners in the Santee-Lynches area. Based on employment projections, the Santee-Lynches area is expected to see growth in requirements for the following levels of education and experience:

- Work experience in a related field
- Postsecondary vocational award
- Associate's degree
- Bachelor's degree
- Master's degree or higher



Source: Economic Modeling Specialists, Inc

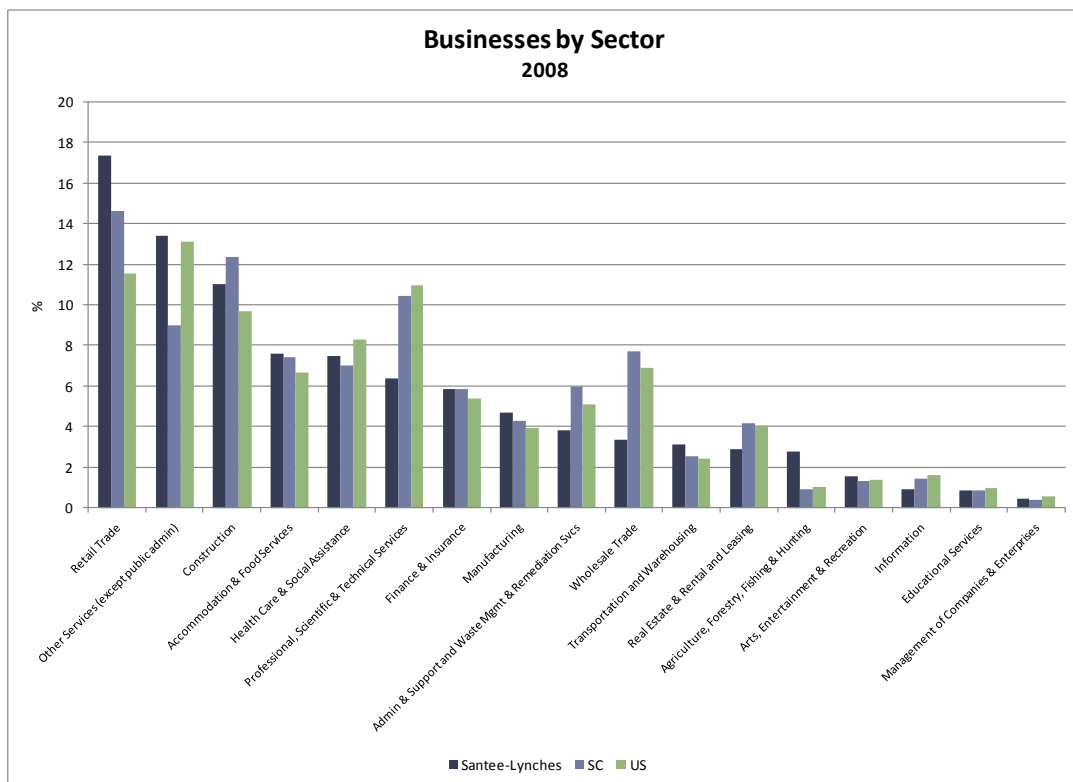


## INDUSTRY

### Businesses by Sector

The Santee-Lynches area had higher percentages of businesses than South Carolina and the nation in the following sectors:

- Retail trade
- Other services
- Accommodation and food services
- Manufacturing
- Transportation and warehousing
- Agriculture and forestry
- Arts, entertainment and recreation



Source: U.S. Department of Labor, Bureau of Labor Statistics.

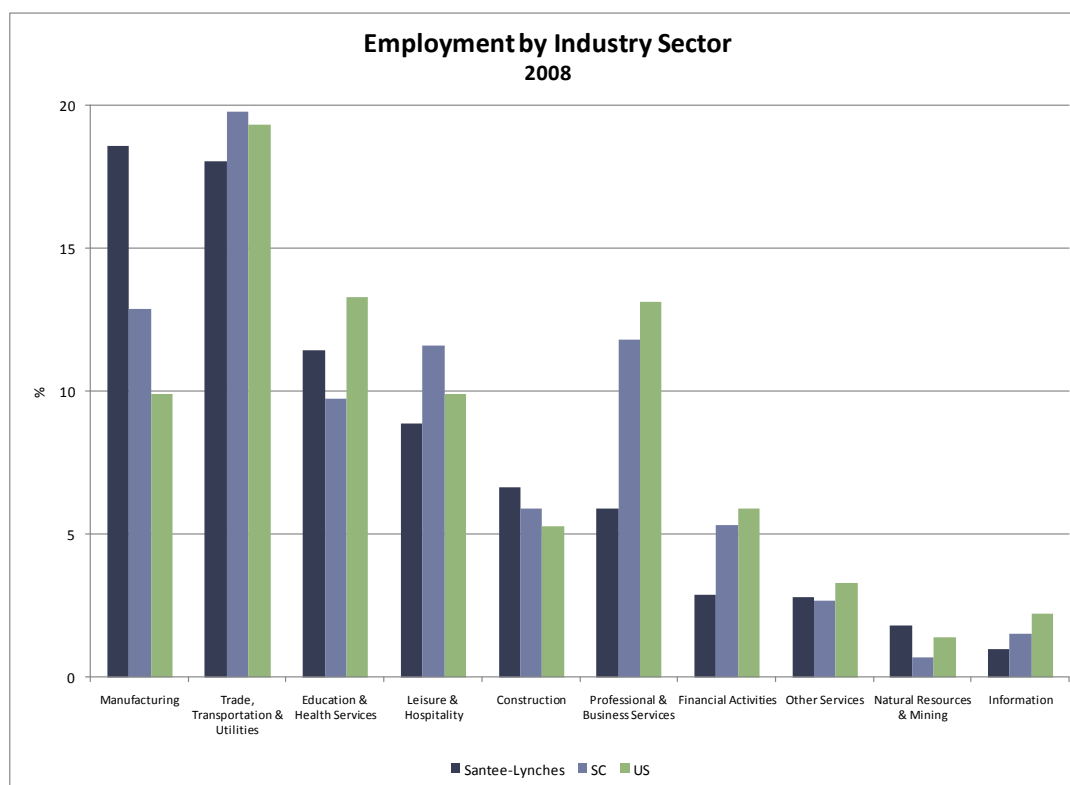
## Growth in Number of Businesses

The number of private businesses in the Santee-Lynches area fell 1% from 2003 to 2008, compared to a 3% increase for the state.

Because the amount of detailed data varies by county, information for three-digit NAICS code sectors for the Santee-Lynches area as a whole is unavailable. Please see county reports for information on growth by detailed industry sectors.

## Employment by Sector

Compared to South Carolina and the United States, the Santee-Lynches area's employment is much more concentrated in manufacturing. The area also has a higher concentration of employment in construction and natural resources and mining.



Source: U.S. Department of Labor, Bureau of Labor Statistics.

# Industry Analysis

## Screening Criteria

For each county in the Santee-Lynches area, industry sectors with available data were rated on six factors:

- |                                    |                                 |
|------------------------------------|---------------------------------|
| • 2003-2008 employment growth      | Competitive effect <sup>1</sup> |
| • 2003-2008 employment growth rate | Average annual wage             |
| • Location quotient <sup>2</sup>   | Projected growth                |

Using those factors, sectors were awarded “stars” based on meeting the following criteria:

- 2003-2008 employment growth (Did the sector add a significant number of jobs?)
- 2003-2008 employment growth rate (Did the sector add jobs?)
- Location quotient of at least 1.25 (Does the sector have a significant concentration in the county?)
- Competitive effect greater than 0 (Did the sector add jobs beyond national growth overall and in the sector?)
- Average annual wage greater than the overall county average (Does the sector pay wages greater than average for the county?)
- Average or above average projected growth (Is the sector expected to add jobs?)

## Industries of Note

Based on the analyses for each county in the Santee-Lynches area, the following sectors of note were identified (and the counties for which they were significant):

- Building construction (Kershaw, Sumter)
- Heavy and civil engineering construction (Sumter)
- Fabricated metal product manufacturing (Kershaw, Sumter)
- Machinery manufacturing (Sumter)
- Transportation equipment manufacturing (Kershaw)
- Merchant wholesalers, durable goods (Sumter)
- Truck transportation (Clarendon, Kershaw, Lee, Sumter)
- Professional, scientific and technical services (Kershaw)
- Management of companies and enterprises (Kershaw)
- Ambulatory health care services (Sumter)

See the reports for each county for information about the respective industries of note as well as other sectors in the county.

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<sup>1</sup> *Competitive Effect: based on shift-share analysis; represents the change in employment in the sector in the county after accounting for overall US employment growth and growth/decline in the sector in the US.*

<sup>2</sup> *Location Quotient: percentage of employment in the sector in the county divided by the percentage of employment in that sector in the US; gives an indication of how concentrated employment in the sector is in the county compared to the US; based on 2008 data.*

## MOVING FORWARD

The South Carolina Department of Commerce appreciates the opportunity to provide this base analysis of the Santee-Lynches area's labor market. We hope that it will help in advancing the progress of the Santee-Lynches area's economic development.

### What's been done so far?

This analysis identifies the region's assets—both current and future—at a macro level. Labor Market Information (LMI) at the S.C. Department of Commerce developed a Base Labor Analysis report providing an overview of the region's population, industries, occupations, and educational assets. Additionally, these findings were benchmarked against the state and the nation.

### What's next?

Because local knowledge is required to interpret and apply the findings appropriately, the Santee-Lynches Base Labor Analysis should be used with local stakeholders to identify and define key, targeted industry clusters. Some items to consider when defining these clusters may include the following.

**1. *What is the Santee-Lynches area's economic base?***

In order for an economy to grow, it must have a base (export) sector that generates wealth from beyond its borders. Industries in the economic base (manufacturing, scientific and technology services, warehouse and distribution, financial services, regional healthcare, etc.) typically provide occupations with higher pay and benefits as well as better human capital development and promotion opportunities. A successful economic base stimulates the development of the non-base sector (housing, schools, retail, restaurants, personal services, etc.). It also propels the local tax base which, in turn, provides support to community services.

**2. *What are strategies to assist low-wage citizens in non-base economy jobs?***

Although the economic base is the driver for long-term growth in a region, implementable strategies for developing job opportunities for low-skilled individuals is a priority for community economic well-being. This need must also be kept in mind when defining target industry clusters.

**3. *What other factors are vital to the Santee-Lynches area and its communities?***

Over and above pure economic considerations, what is important to the citizens of the Santee-Lynches area? How does Santee-Lynches want to be perceived? What quality of life issues affect Santee-Lynches? These questions may impact the types of industries desired for the area.

## How Labor Market Information at the S.C. Department of Commerce can help.

Once local stakeholders have identified key industry clusters vital to the future economic development of the region, LMI can provide more in-depth analysis of each of these industries, their occupations, business establishments, and educational requirements.

### 1. Detailed Industry Analysis

For each identified industry, LMI can develop a detailed analysis of each sector, including employment, projected growth, staffing patterns, location quotients, and employers. Additionally, the analysis will examine the largest, fastest growing, and declining sectors within the industry cluster.

### 2. Detailed Occupational Analysis

At this point, the occupations—classified by SOC codes—that make up each of the identified industry clusters can be analyzed in detail. This analysis will include employment, average earnings, educational requirements, projected growth, and completers from available local training programs. It will culminate in identifying gaps between the number of occupations required to sustain and advance industry growth and the number of skilled workers (as identified by educational requirements and program completers) available to fulfill these positions.

### 3. Identification of Implementable Recommendations

LMI will utilize the findings of the analyses to develop a set of implementable recommendations. These may include recommendations to align community college programs with economic development goals along with others. Finally, local knowledge will once again be called upon to review the findings and develop an action plan for the implementation of feasible solutions.

## Appendix A: Occupational Projections for Santee-Lynches Area

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
11-1011	Chief executives	537	628	91	17	0.88	21.07	Degree plus work experience
11-1021	General and operations managers	872	895	23	3	0.91	30.89	Degree plus work experience
11-1031	Legislators	75	74	-1	-1	2.19	8.72	Degree plus work experience
11-2011	Advertising and promotions managers	18	18	0	0	0.63	21.77	Degree plus work experience
11-2021	Marketing managers	45	50	5	11	0.40	21.61	Degree plus work experience
11-2022	Sales managers	104	116	12	12	0.52	30.57	Degree plus work experience
11-2031	Public relations managers	22	25	3	14	0.67	21.31	Degree plus work experience
11-3011	Administrative services managers	86	92	6	7	0.62	27.30	Degree plus work experience
11-3021	Computer and information systems managers	37	40	3	8	0.23	31.37	Degree plus work experience
11-3031	Financial managers	172	186	14	8	0.49	26.86	Degree plus work experience

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
11-3041	Compensation and benefits managers	20	21	1	5	0.84	23.81	Degree plus work experience
11-3042	Training and development managers	14	16	2	14	0.74	24.06	Degree plus work experience
11-3049	Human resources managers, all other	24	26	2	8	0.68	25.09	Degree plus work experience
11-3051	Industrial production managers	90	84	-6	-7	1.14	36.57	Work experience in a related field
11-3061	Purchasing managers	19	20	1	5	0.54	30.05	Degree plus work experience
11-3071	Transportation, storage, and distribution managers	26	27	1	4	0.47	23.84	Work experience in a related field
11-9011	Farm, ranch, and other agricultural managers	415	466	51	12	1.43	11.24	Degree plus work experience
11-9012	Farmers and ranchers	1,200	1,177	-23	-2	1.31	6.55	Long-term on-the-job training
11-9021	Construction managers	615	755	140	23	1.60	17.88	Bachelor's degree
11-9031	Education administrators, preschool and child care center/program	39	40	1	3	0.73	12.12	Degree plus work experience
11-9032	Education administrators, elementary and secondary school	179	177	-2	-1	1.28	41.57	Degree plus work experience
11-9033	Education administrators, postsecondary	28	31	3	11	0.37	21.88	Degree plus work experience

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
11-9039	Education administrators, all other	40	42	2	5	1.16	19.45	Degree plus work experience
11-9041	Engineering managers	70	75	5	7	0.72	42.27	Degree plus work experience
11-9051	Food service managers	257	317	60	23	1.05	11.13	Work experience in a related field
11-9061	Funeral directors	19	15	-4	-21	1.17	17.75	Associate's degree
11-9081	Lodging managers	114	148	34	30	1.49	11.14	Work experience in a related field
11-9111	Medical and health services managers	178	201	23	13	1.02	26.49	Degree plus work experience
11-9131	Postmasters and mail superintendents	15	16	1	7	1.13	26.75	Work experience in a related field
11-9141	Property, real estate, and community association managers	489	676	187	38	0.76	7.05	Bachelor's degree
11-9151	Social and community service managers	50	57	7	14	0.57	11.85	Bachelor's degree
11-9199	Managers, all other	605	716	111	18	0.69	9.32	Work experience in a related field
13-1011	Agents and business managers of artists, performers, and athletes	12	16	4	33	0.46	7.49	Degree plus work experience
13-1022	Wholesale and retail buyers, except farm products	44	47	3	7	0.49	14.86	Work experience in a related field



SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
13-1023	Purchasing agents, except wholesale, retail, and farm products	111	114	3	3	0.70	22.30	Work experience in a related field
13-1031	Claims adjusters, examiners, and investigators	64	64	0	0	0.39	19.20	Long-term on-the-job training
13-1032	Insurance appraisers, auto damage	15	16	1	7	0.76	9.76	Long-term on-the-job training
13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation	58	59	1	2	0.43	18.49	Long-term on-the-job training
13-1051	Cost estimators	134	156	22	16	1.11	21.19	Work experience in a related field
13-1071	Employment, recruitment, and placement specialists	34	38	4	12	0.30	15.77	Bachelor's degree
13-1072	Compensation, benefits, and job analysis specialists	23	25	2	9	0.32	17.38	Bachelor's degree
13-1073	Training and development specialists	63	70	7	11	0.52	19.14	Bachelor's degree
13-1079	Human resources, training, and labor relations specialists, all other	45	51	6	13	0.34	19.87	Bachelor's degree
13-1081	Logisticians	64	67	3	5	1.18	30.18	Bachelor's degree
13-1111	Management analysts	254	308	54	21	0.46	18.44	Degree plus work experience
13-1121	Meeting and convention planners	20	23	3	15	0.48	9.26	Bachelor's degree
13-1199	Business operation specialists, all other	165	186	21	13	0.28	23.83	Bachelor's degree
13-2011	Accountants and auditors	502	558	56	11	0.59	16.67	Bachelor's degree
13-2021	Appraisers and assessors of real estate	188	255	67	36	0.81	7.73	Postsecondary vocational award

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
13-2041	Credit analysts	14	14	0	0	0.38	21.57	Bachelor's degree
13-2051	Financial analysts	51	65	14	27	0.24	11.71	Bachelor's degree
13-2052	Personal financial advisors	158	202	44	28	0.41	9.26	Bachelor's degree
13-2053	Insurance underwriters	14	14	0	0	0.24	15.81	Bachelor's degree
13-2071	Loan counselors	24	23	-1	-4	0.93	13.25	Bachelor's degree
13-2072	Loan officers	110	116	6	5	0.62	21.09	Bachelor's degree
13-2082	Tax preparers	37	37	0	0	0.61	9.88	Moderate-term on-the-job training
13-2099	Financial specialists, all other	21	16	-5	-24	0.24	15.10	Bachelor's degree
15-1021	Computer programmers	58	55	-3	-5	0.23	21.53	Bachelor's degree
15-1031	Computer software engineers, applications	26	30	4	15	0.09	23.77	Bachelor's degree
15-1032	Computer software engineers, systems software	27	31	4	15	0.12	25.92	Bachelor's degree
15-1041	Computer support specialists	85	91	6	7	0.28	15.12	Associate's degree
15-1051	Computer systems analysts	47	55	8	17	0.16	21.90	Bachelor's degree
15-1061	Database administrators	28	32	4	14	0.42	22.78	Bachelor's degree
15-1071	Network and computer systems administrators	35	41	6	17	0.19	19.53	Bachelor's degree
15-1081	Network systems and data communications analysts	132	166	34	26	0.77	26.00	Bachelor's degree

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
15-1099	Computer specialists, all other	34	36	2	6	0.27	22.27	Associate's degree
15-2031	Operations research analysts	15	16	1	7	0.43	28.67	Master's degree
17-1011	Architects, except landscape and naval	39	47	8	21	0.50	18.66	Bachelor's degree
17-1012	Landscape architects	30	37	7	23	0.95	14.36	Bachelor's degree
17-1021	Cartographers and photogrammetrists	13	13	0	0	1.41	17.38	Bachelor's degree
17-1022	Surveyors	38	41	3	8	1.20	17.15	Bachelor's degree
17-2041	Chemical engineers	45	35	-10	-22	2.60	33.14	Bachelor's degree
17-2051	Civil engineers	91	103	12	13	0.56	23.14	Bachelor's degree
17-2061	Computer hardware engineers	19	19	0	0	0.45	25.01	Bachelor's degree
17-2071	Electrical engineers	107	113	6	6	1.29	28.54	Bachelor's degree
17-2072	Electronics engineers, except computer	21	23	2	10	0.27	27.07	Bachelor's degree
17-2081	Environmental engineers	26	29	3	12	0.86	23.72	Bachelor's degree
17-2111	Health and safety engineers, except mining safety engineers and inspectors	43	47	4	9	2.96	29.46	Bachelor's degree
17-2112	Industrial engineers	158	188	30	19	1.43	30.04	Bachelor's degree
17-2131	Materials engineers	20	21	1	5	1.53	28.57	Bachelor's degree
17-2141	Mechanical engineers	130	141	11	8	1.06	25.64	Bachelor's degree
17-2161	Nuclear engineers	31	32	1	3	1.53	31.13	Bachelor's degree

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
17-2199	Engineers, all other	26	28	2	8	0.26	24.34	Bachelor's degree
17-3011	Architectural and civil drafters	25	27	2	8	0.41	16.54	Postsecondary vocational award
17-3012	Electrical and electronics drafters	12	13	1	8	0.60	18.11	Postsecondary vocational award
17-3013	Mechanical drafters	40	46	6	15	0.98	21.53	Postsecondary vocational award
17-3022	Civil engineering technicians	20	20	0	0	0.41	16.48	Associate's degree
17-3023	Electrical and electronic engineering technicians	48	50	2	4	0.56	21.06	Associate's degree
17-3025	Environmental engineering technicians	18	23	5	28	1.48	17.79	Associate's degree
17-3026	Industrial engineering technicians	77	85	8	10	2.10	20.44	Associate's degree
17-3027	Mechanical engineering technicians	29	31	2	7	1.20	19.27	Associate's degree
17-3029	Engineering technicians, except drafters, all other	14	14	0	0	0.37	20.49	Associate's degree
17-3031	Surveying and mapping technicians	30	34	4	13	0.69	12.29	Moderate-term on-the-job training
19-1031	Conservation scientists	12	12	0	0	0.98	16.17	Bachelor's degree
19-1032	Foresters	11	10	-1	-9	1.20	15.96	Bachelor's degree
19-2031	Chemists	19	17	-2	-11	0.43	24.40	Bachelor's degree
19-2041	Environmental scientists and specialists, including health	10	12	2	20	0.21	15.27	Master's degree
19-2042	Geoscientists, except hydrologists and geographers	19	22	3	16	0.81	13.81	Master's degree

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
19-3021	Market research analysts	22	23	1	5	0.15	14.85	Bachelor's degree
19-3022	Survey researchers	14	15	1	7	0.47	11.62	Bachelor's degree
19-3031	Clinical, counseling, and school psychologists	47	54	7	15	0.48	17.02	Doctoral degree
19-3032	Industrial-organizational psychologists	24	31	7	29	0.54	11.71	Master's degree
19-3039	Psychologists, all other	25	31	6	24	0.51	12.95	Master's degree
19-4031	Chemical technicians	36	27	-9	-25	1.03	19.84	Associate's degree
19-4051	Nuclear technicians	28	32	4	14	5.31	21.50	Associate's degree
19-4091	Environmental science and protection technicians, including health	46	59	13	28	2.35	17.98	Associate's degree
21-1011	Substance abuse and behavioral disorder counselors	32	35	3	9	0.58	13.33	Master's degree
21-1012	Educational, vocational, and school counselors	218	227	9	4	1.45	20.61	Master's degree
21-1013	Marriage and family therapists	11	12	1	9	0.43	9.83	Master's degree
21-1014	Mental health counselors	32	34	2	6	0.45	14.03	Master's degree
21-1015	Rehabilitation counselors	57	61	4	7	0.76	12.62	Master's degree
21-1019	Counselors, all other	11	12	1	9	0.40	9.08	Master's degree
21-1021	Child, family, and school social workers	228	236	8	4	1.34	14.74	Bachelor's degree
21-1022	Medical and public health social workers	85	94	9	11	1.05	15.65	Bachelor's degree
21-1023	Mental health and substance abuse social workers	121	128	7	6	1.44	9.54	Master's degree
21-1029	Social workers, all other	150	155	5	3	3.23	15.87	Bachelor's degree
21-1091	Health educators	31	35	4	13	0.80	14.94	Master's degree
21-1092	Probation officers and correctional treatment specialists	37	38	1	3	0.70	15.69	Bachelor's degree
21-1093	Social and human service assistants	135	149	14	10	0.66	8.09	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
21-1099	Community and social service specialists, all other	40	46	6	15	0.58	9.90	Bachelor's degree
21-2011	Clergy	204	224	20	10	1.40	7.01	Master's degree
21-2021	Directors, religious activities and education	96	107	11	11	1.42	7.08	Bachelor's degree
21-2099	Religious workers, all other	45	50	5	11	1.37	6.69	Bachelor's degree
23-1011	Lawyers	207	227	20	10	0.45	25.17	First professional degree
23-1023	Judges, magistrate judges, and magistrates	27	27	0	0	1.95	15.55	Degree plus work experience
23-2011	Paralegals and legal assistants	127	133	6	5	0.90	14.06	Associate's degree
23-2091	Court reporters	20	23	3	15	0.84	12.48	Postsecondary vocational award
23-2092	Law clerks	21	23	2	10	0.70	10.48	Bachelor's degree
23-2093	Title examiners, abstractors, and searchers	34	36	2	6	0.75	9.76	Moderate-term on-the-job training
23-2099	Legal support workers, all other	16	19	3	19	0.45	10.02	Bachelor's degree
25-1099	Postsecondary teachers	646	728	82	13	0.67	31.39	Doctoral degree
25-2011	Preschool teachers, except special education	203	213	10	5	0.67	10.80	Postsecondary vocational award
25-2012	Kindergarten teachers, except special education	179	187	8	4	1.59	24.26	Bachelor's degree
25-2021	Elementary school teachers, except special education	1,190	1,210	20	2	1.33	25.18	Bachelor's degree

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
25-2022	Middle school teachers, except special and vocational education	567	565	-2	0	1.48	24.75	Bachelor's degree
25-2023	Vocational education teachers, middle school	61	53	-8	-13	2.53	21.40	Degree plus work experience
25-2031	Secondary school teachers, except special and vocational education	674	653	-21	-3	1.11	26.12	Bachelor's degree
25-2032	Vocational education teachers, secondary school	90	79	-11	-12	1.50	25.90	Degree plus work experience
25-2041	Special education teachers, preschool, kindergarten, and elementary school	119	124	5	4	0.92	24.67	Bachelor's degree
25-2042	Special education teachers, middle school	70	71	1	1	1.20	25.03	Bachelor's degree
25-2043	Special education teachers, secondary school	86	85	-1	-1	1.04	25.78	Bachelor's degree
25-3011	Adult literacy, remedial education, and GED teachers and instructors	78	83	5	6	0.91	17.32	Bachelor's degree
25-3021	Self-enrichment education teachers	111	126	15	14	0.69	12.72	Work experience in a related field
25-3099	Teachers and instructors, all other	509	521	12	2	1.39	10.83	Bachelor's degree
25-4021	Librarians	97	94	-3	-3	1.08	21.74	Master's degree
25-4031	Library technicians	65	64	-1	-2	0.98	11.03	Postsecondary vocational award
25-9031	Instructional coordinators	118	126	8	7	1.57	25.48	Master's degree
25-9041	Teacher assistants	888	882	-6	-1	1.14	9.80	Short-term on-the-job training
25-9099	Education, training, and library workers, all other	14	14	0	0	0.22	10.55	Bachelor's degree

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
27-1011	Art directors	35	41	6	17	0.50	7.68	Degree plus work experience
27-1012	Craft artists	30	35	5	17	0.57	6.60	Long-term on-the-job training
27-1013	Fine artists, including painters, sculptors, and illustrators	32	37	5	16	0.59	7.22	Long-term on-the-job training
27-1014	Multi-media artists and animators	37	44	7	19	0.54	7.61	Bachelor's degree
27-1019	Artists and related workers, all other	30	35	5	17	0.55	6.60	Long-term on-the-job training
27-1021	Commercial and industrial designers	21	25	4	19	0.52	11.84	Bachelor's degree
27-1022	Fashion designers	15	18	3	20	0.46	9.33	Associate's degree
27-1023	Floral designers	33	33	0	0	0.65	8.26	Moderate-term on-the-job training
27-1024	Graphic designers	36	41	5	14	0.26	11.39	Bachelor's degree
27-1025	Interior designers	27	34	7	26	0.53	12.63	Associate's degree
27-1026	Merchandise displayers and window trimmers	21	24	3	14	0.38	9.05	Moderate-term on-the-job training
27-1027	Set and exhibit designers	19	22	3	16	0.68	9.05	Bachelor's degree
27-1029	Designers, all other	15	19	4	27	0.52	9.41	Bachelor's degree
27-2011	Actors	19	23	4	21	0.37	8.55	Long-term on-the-job training
27-2012	Producers and directors	28	31	3	11	0.40	12.60	Degree plus work experience



SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
27-2021	Athletes and sports competitors	17	18	1	6	0.70	12.68	Long-term on-the-job training
27-2022	Coaches and scouts	54	59	5	9	0.46	17.03	Long-term on-the-job training
27-2023	Umpires, referees, and other sports officials	17	19	2	12	0.72	7.10	Long-term on-the-job training
27-2032	Choreographers	15	17	2	13	1.20	11.54	Work experience in a related field
27-2041	Music directors and composers	74	86	12	16	0.77	6.59	Degree plus work experience
27-2042	Musicians and singers	121	138	17	14	0.89	6.86	Long-term on-the-job training
27-2099	Entertainers and performers, sports and related workers, all other	27	28	1	4	0.48	7.04	Long-term on-the-job training
27-3011	Radio and television announcers	24	17	-7	-29	0.91	14.19	Long-term on-the-job training
27-3022	Reporters and correspondents	18	18	0	0	0.57	9.21	Degree plus work experience
27-3031	Public relations specialists	55	63	8	15	0.35	11.96	Bachelor's degree
27-3041	Editors	27	32	5	19	0.32	8.59	Bachelor's degree
27-3042	Technical writers	11	12	1	9	0.33	13.87	Bachelor's degree
27-3043	Writers and authors	100	122	22	22	0.52	6.94	Bachelor's degree
27-3091	Interpreters and translators	37	34	-3	-8	0.49	13.08	Long-term on-the-job training
27-3099	Media and communication workers, all other	33	30	-3	-9	0.49	13.23	Long-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
27-4011	Audio and video equipment technicians	10	12	2	20	0.37	9.21	Long-term on-the-job training
27-4021	Photographers	239	217	-22	-9	0.61	11.30	Long-term on-the-job training
29-1011	Chiropractors	14	13	-1	-7	0.41	24.99	First professional degree
29-1021	Dentists, general	27	27	0	0	0.52	65.61	First professional degree
29-1031	Dietitians and nutritionists	26	28	2	8	0.65	17.20	Bachelor's degree
29-1041	Optometrists	17	22	5	29	0.60	27.67	First professional degree
29-1051	Pharmacists	171	227	56	33	1.17	45.37	First professional degree
29-1069	Physicians and surgeons	402	452	50	12	0.87	63.41	First professional degree
29-1071	Physician assistants	19	22	3	16	0.45	29.85	Bachelor's degree
29-1111	Registered nurses	936	1,061	125	13	0.66	26.64	Associate's degree
29-1122	Occupational therapists	34	38	4	12	0.57	23.00	Master's degree
29-1123	Physical therapists	53	65	12	23	0.48	27.42	Master's degree
29-1126	Respiratory therapists	31	35	4	13	0.55	19.79	Associate's degree
29-1127	Speech-language pathologists	64	65	1	2	0.82	21.55	Master's degree
29-1129	Therapists, all other	16	20	4	25	0.47	10.38	Bachelor's degree

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
29-1131	Veterinarians	42	50	8	19	1.06	31.31	First professional degree
29-1199	Health diagnosing and treating practitioners, all other	18	22	4	22	0.41	17.98	Bachelor's degree
29-2011	Medical and clinical laboratory technologists	48	58	10	21	0.53	18.82	Bachelor's degree
29-2012	Medical and clinical laboratory technicians	99	118	19	19	1.18	14.71	Associate's degree
29-2021	Dental hygienists	95	108	13	14	0.98	24.76	Associate's degree
29-2031	Cardiovascular technologists and technicians	20	23	3	15	0.73	18.70	Associate's degree
29-2032	Diagnostic medical sonographers	15	17	2	13	0.53	21.33	Associate's degree
29-2033	Nuclear medicine technologists	11	12	1	9	0.84	24.50	Associate's degree
29-2034	Radiologic technologists and technicians	93	108	15	16	0.82	17.40	Associate's degree
29-2041	Emergency medical technicians and paramedics	103	145	42	41	0.92	12.17	Postsecondary vocational award
29-2051	Dietetic technicians	14	14	0	0	0.96	10.33	Moderate-term on-the-job training
29-2052	Pharmacy technicians	161	192	31	19	0.90	10.20	Moderate-term on-the-job training
29-2055	Surgical technologists	27	31	4	15	0.56	14.82	Postsecondary vocational award
29-2056	Veterinary technologists and technicians	46	54	8	17	1.03	11.51	Associate's degree

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
29-2061	Licensed practical and licensed vocational nurses	412	428	16	4	1.03	16.42	Postsecondary vocational award
29-2071	Medical records and health information technicians	100	108	8	8	1.08	11.30	Associate's degree
29-2081	Opticians, dispensing	30	40	10	33	0.75	9.92	Long-term on-the-job training
29-2091	Orthotists and prosthetists	10	12	2	20	1.19	19.26	Bachelor's degree
29-2099	Healthcare technologists and technicians, all other	14	16	2	14	0.31	11.06	Postsecondary vocational award
29-9011	Occupational health and safety specialists	52	51	-1	-2	1.75	19.27	Bachelor's degree
31-1011	Home health aides	754	920	166	22	1.38	7.51	Short-term on-the-job training
31-1012	Nursing aides, orderlies, and attendants	713	766	53	7	0.87	8.54	Postsecondary vocational award
31-1013	Psychiatric aides	89	122	33	37	1.20	6.66	Short-term on-the-job training
31-2021	Physical therapist assistants	23	27	4	17	0.68	19.64	Associate's degree
31-2022	Physical therapist aides	35	35	0	0	1.39	8.65	Short-term on-the-job training
31-9011	Massage therapists	42	30	-12	-29	0.76	9.65	Postsecondary vocational award
31-9091	Dental assistants	108	123	15	14	0.66	14.03	Moderate-term on-the-job training
31-9092	Medical assistants	204	246	42	21	0.76	10.95	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
31-9093	Medical equipment preparers	20	24	4	20	0.67	10.24	Short-term on-the-job training
31-9094	Medical transcriptionists	36	40	4	11	0.68	11.00	Postsecondary vocational award
31-9095	Pharmacy aides	37	42	5	14	1.07	8.29	Short-term on-the-job training
31-9096	Veterinary assistants and laboratory animal caretakers	27	30	3	11	0.60	8.25	Short-term on-the-job training
31-9099	Healthcare support workers, all other	66	76	10	15	0.61	9.87	Short-term on-the-job training
33-1011	First-line supervisors/managers of correctional officers	20	21	1	5	0.85	20.48	Work experience in a related field
33-1012	First-line supervisors/managers of police and detectives	63	64	1	2	1.31	21.57	Work experience in a related field
33-1021	First-line supervisors/managers of fire fighting and prevention workers	31	32	1	3	1.03	19.58	Work experience in a related field
33-1099	First-line supervisors/managers, protective service workers, all other	68	81	13	19	2.16	19.55	Work experience in a related field
33-2011	Fire fighters	129	133	4	3	0.81	11.71	Long-term on-the-job training
33-2021	Fire inspectors and investigators	11	11	0	0	1.33	15.81	Work experience in a related field
33-3011	Bailiffs	20	20	0	0	1.72	9.71	Moderate-term on-the-job training
33-3012	Correctional officers and jailers	637	706	69	11	2.90	14.05	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
33-3021	Detectives and criminal investigators	87	94	7	8	1.50	20.03	Work experience in a related field
33-3051	Police and sheriff's patrol officers	422	435	13	3	1.23	15.58	Long-term on-the-job training
33-9011	Animal control workers	19	20	1	5	1.99	11.06	Moderate-term on-the-job training
33-9021	Private detectives and investigators	30	41	11	37	0.81	8.83	Work experience in a related field
33-9031	Gaming surveillance officers and gaming investigators	18	24	6	33	0.90	6.88	Moderate-term on-the-job training
33-9032	Security guards	433	512	79	18	0.75	10.30	Short-term on-the-job training
33-9091	Crossing guards	28	26	-2	-7	0.76	9.85	Short-term on-the-job training
33-9092	Lifeguards, ski patrol, and other recreational protective service workers	84	90	6	7	1.28	7.48	Short-term on-the-job training
33-9099	Protective service workers, all other	70	73	3	4	1.39	11.35	Short-term on-the-job training
35-1011	Chefs and head cooks	55	62	7	13	0.84	12.58	Work experience in a related field
35-1012	First-line supervisors/managers of food preparation and serving workers	553	615	62	11	1.15	11.52	Work experience in a related field
35-2011	Cooks, fast food	912	999	87	10	2.98	7.02	Short-term on-the-job training
35-2012	Cooks, institution and cafeteria	322	324	2	1	1.47	8.19	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
35-2013	Cooks, private household	16	19	3	19	1.25	6.93	Long-term on-the-job training
35-2014	Cooks, restaurant	308	328	20	6	0.63	8.19	Long-term on-the-job training
35-2015	Cooks, short order	104	112	8	8	1.06	6.92	Short-term on-the-job training
35-2019	Cooks, all other	12	15	3	25	0.67	6.87	Moderate-term on-the-job training
35-2021	Food preparation workers	629	684	55	9	1.28	7.35	Short-term on-the-job training
35-3011	Bartenders	189	229	40	21	0.66	7.22	Short-term on-the-job training
35-3021	Combined food preparation and serving workers, including fast food	1,133	1,303	170	15	0.77	7.20	Short-term on-the-job training
35-3022	Counter attendants, cafeteria, food concession, and coffee shop	447	484	37	8	1.58	7.67	Short-term on-the-job training
35-3031	Waiters and waitresses	696	743	47	7	0.54	6.96	Short-term on-the-job training
35-3041	Food servers, nonrestaurant	45	48	3	7	0.44	7.14	Short-term on-the-job training
35-9011	Dining room and cafeteria attendants and bartender helpers	164	174	10	6	0.72	6.99	Short-term on-the-job training
35-9021	Dishwashers	280	292	12	4	0.99	7.09	Short-term on-the-job training
35-9031	Hosts and hostesses, restaurant, lounge, and coffee shop	185	194	9	5	0.97	7.24	Short-term on-the-job training
37-1011	First-line supervisors/managers of housekeeping and janitorial workers	270	341	71	26	1.27	8.80	Work experience in a related field
37-1012	First-line supervisors/managers of landscaping, lawn service, and groundskeeping workers	109	143	34	31	1.37	10.58	Work experience in a related field

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	1,157	1,218	61	5	0.95	8.21	Short-term on-the-job training
37-2012	Maids and housekeeping cleaners	1,672	2,058	386	23	1.47	6.95	Short-term on-the-job training
37-2019	Building cleaning workers, all other	388	545	157	40	1.30	6.56	Short-term on-the-job training
37-2021	Pest control workers	44	55	11	25	0.87	8.27	Moderate-term on-the-job training
37-3011	Landscaping and groundskeeping workers	502	646	144	29	0.91	9.11	Short-term on-the-job training
37-3012	Pesticide handlers, sprayers, and applicators, vegetation	135	191	56	41	2.28	7.53	Moderate-term on-the-job training
37-3013	Tree trimmers and pruners	125	177	52	42	1.96	7.05	Short-term on-the-job training
37-3019	Grounds maintenance workers, all other	131	183	52	40	2.42	6.71	Short-term on-the-job training
39-1011	Gaming supervisors	12	13	1	8	0.42	8.12	Work experience in a related field
39-1021	First-line supervisors/managers of personal service workers	123	105	-18	-15	0.96	9.35	Work experience in a related field
39-2011	Animal trainers	75	67	-8	-11	1.47	7.83	Moderate-term on-the-job training
39-2021	Nonfarm animal caretakers	272	213	-59	-22	1.38	7.33	Short-term on-the-job training
39-3012	Gaming and sports book writers and runners	21	23	2	10	1.22	6.72	Short-term on-the-job training
39-3031	Ushers, lobby attendants, and ticket takers	32	34	2	6	0.57	8.43	Short-term on-the-job training



SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
39-3091	Amusement and recreation attendants	86	89	3	3	0.62	7.24	Short-term on-the-job training
39-3099	Entertainment attendants and related workers, all other	17	17	0	0	0.58	6.73	Moderate-term on-the-job training
39-4021	Funeral attendants	27	24	-3	-11	1.49	9.30	Short-term on-the-job training
39-5012	Hairdressers, hairstylists, and cosmetologists	160	78	-82	-51	0.53	7.20	Postsecondary vocational award
39-6021	Tour guides and escorts	12	14	2	17	0.53	7.16	Moderate-term on-the-job training
39-9011	Child care workers	1,354	1,556	202	15	1.31	6.83	Short-term on-the-job training
39-9021	Personal and home care aides	480	624	144	30	0.96	6.59	Short-term on-the-job training
39-9031	Fitness trainers and aerobics instructors	90	106	16	18	0.59	10.61	Postsecondary vocational award
39-9032	Recreation workers	156	160	4	3	0.82	8.75	Short-term on-the-job training
39-9041	Residential advisors	17	17	0	0	0.55	8.26	Moderate-term on-the-job training
39-9099	Personal care and service workers, all other	45	29	-16	-36	0.66	6.71	Short-term on-the-job training
41-1011	First-line supervisors/managers of retail sales workers	1,577	1,718	141	9	1.32	12.22	Work experience in a related field
41-1012	First-line supervisors/managers of non-retail sales workers	352	409	57	16	0.72	11.38	Work experience in a related field

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
41-2011	Cashiers, except gaming	2,847	2,974	127	4	1.49	7.34	Short-term on-the-job training
41-2012	Gaming change persons and booth cashiers	37	40	3	8	1.09	13.10	Short-term on-the-job training
41-2021	Counter and rental clerks	168	180	12	7	0.69	8.56	Short-term on-the-job training
41-2022	Parts salespersons	174	172	-2	-1	1.49	10.60	Moderate-term on-the-job training
41-2031	Retail salespersons	2,593	3,004	411	16	0.98	9.09	Short-term on-the-job training
41-3011	Advertising sales agents	54	59	5	9	0.45	14.16	Moderate-term on-the-job training
41-3021	Insurance sales agents	372	391	19	5	0.96	11.43	Bachelor's degree
41-3031	Securities, commodities, and financial services sales agents	135	160	25	19	0.40	13.69	Bachelor's degree
41-3041	Travel agents	29	42	13	45	0.47	7.58	Postsecondary vocational award
41-3099	Sales representatives, services, all other	171	213	42	25	0.42	10.79	Moderate-term on-the-job training
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	126	148	22	17	0.45	16.97	Moderate-term on-the-job training
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	426	470	44	10	0.50	17.35	Moderate-term on-the-job training
41-9011	Demonstrators and product promoters	33	38	5	15	0.49	6.58	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
41-9012	Models	15	17	2	13	0.68	6.56	Moderate-term on-the-job training
41-9021	Real estate brokers	834	1,156	322	39	0.86	6.84	Work experience in a related field
41-9022	Real estate sales agents	892	1,216	324	36	0.86	6.95	Postsecondary vocational award
41-9041	Telemarketers	31	33	2	6	0.17	7.61	Short-term on-the-job training
41-9091	Door-to-door sales workers, news and street vendors, and related workers	463	509	46	10	0.86	6.56	Short-term on-the-job training
41-9099	Sales and related workers, all other	93	102	9	10	0.56	6.68	Moderate-term on-the-job training
43-1011	First-line supervisors/managers of office and administrative support workers	729	761	32	4	0.87	16.86	Work experience in a related field
43-2011	Switchboard operators, including answering service	62	57	-5	-8	0.75	9.27	Short-term on-the-job training
43-2021	Telephone operators	29	25	-4	-14	2.00	14.60	Short-term on-the-job training
43-3011	Bill and account collectors	170	193	23	14	0.76	10.99	Short-term on-the-job training
43-3021	Billing and posting clerks and machine operators	232	240	8	3	0.82	12.19	Moderate-term on-the-job training
43-3031	Bookkeeping, accounting, and auditing clerks	956	1,049	93	10	0.80	11.58	Moderate-term on-the-job training
43-3051	Payroll and timekeeping clerks	106	106	0	0	0.98	13.40	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
43-3061	Procurement clerks	48	46	-2	-4	1.12	12.51	Short-term on-the-job training
43-3071	Tellers	400	390	-10	-3	1.18	10.14	Short-term on-the-job training
43-4011	Brokerage clerks	43	43	0	0	1.17	11.38	Moderate-term on-the-job training
43-4021	Correspondence clerks	10	11	1	10	1.04	10.55	Short-term on-the-job training
43-4031	Court, municipal, and license clerks	31	32	1	3	0.50	12.09	Short-term on-the-job training
43-4041	Credit authorizers, checkers, and clerks	36	34	-2	-6	1.06	11.70	Short-term on-the-job training
43-4051	Customer service representatives	662	806	144	22	0.54	11.13	Moderate-term on-the-job training
43-4061	Eligibility interviewers, government programs	16	16	0	0	0.27	14.18	Moderate-term on-the-job training
43-4071	File clerks	71	54	-17	-24	0.62	9.01	Short-term on-the-job training
43-4081	Hotel, motel, and resort desk clerks	93	92	-1	-1	0.77	7.79	Short-term on-the-job training
43-4111	Interviewers, except eligibility and loan	106	113	7	7	0.77	11.21	Short-term on-the-job training
43-4121	Library assistants, clerical	46	46	0	0	0.70	9.46	Short-term on-the-job training
43-4131	Loan interviewers and clerks	90	87	-3	-3	0.77	12.96	Short-term on-the-job training
43-4141	New accounts clerks	33	26	-7	-21	0.72	11.73	Work experience in a related field
43-4151	Order clerks	51	41	-10	-20	0.40	11.19	Short-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
43-4161	Human resources assistants, except payroll and timekeeping	92	96	4	4	1.01	13.98	Short-term on-the-job training
43-4171	Receptionists and information clerks	516	560	44	9	0.82	9.62	Short-term on-the-job training
43-4181	Reservation and transportation ticket agents and travel clerks	26	28	2	8	0.29	9.44	Short-term on-the-job training
43-4199	Information and record clerks, all other	35	30	-5	-14	0.31	12.35	Short-term on-the-job training
43-5011	Cargo and freight agents	12	14	2	17	0.25	13.85	Moderate-term on-the-job training
43-5021	Couriers and messengers	121	155	34	28	0.79	7.15	Short-term on-the-job training
43-5031	Police, fire, and ambulance dispatchers	64	69	5	8	1.21	11.17	Moderate-term on-the-job training
43-5032	Dispatchers, except police, fire, and ambulance	57	66	9	16	0.56	12.73	Moderate-term on-the-job training
43-5041	Meter readers, utilities	25	23	-2	-8	1.02	10.25	Short-term on-the-job training
43-5051	Postal service clerks	35	36	1	3	0.86	22.44	Short-term on-the-job training
43-5052	Postal service mail carriers	214	221	7	3	1.17	22.29	Short-term on-the-job training
43-5053	Postal service mail sorters, processors, and processing machine operators	36	35	-1	-3	0.38	19.40	Short-term on-the-job training
43-5061	Production, planning, and expediting clerks	109	114	5	5	0.73	16.54	Short-term on-the-job training
43-5071	Shipping, receiving, and traffic clerks	276	288	12	4	0.70	10.66	Short-term on-the-job training
43-5081	Stock clerks and order fillers	903	925	22	2	0.90	8.80	Short-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
43-5111	Weighers, measurers, checkers, and samplers, recordkeeping	34	29	-5	-15	0.87	10.28	Short-term on-the-job training
43-6011	Executive secretaries and administrative assistants	438	480	42	10	0.49	13.19	Moderate-term on-the-job training
43-6012	Legal secretaries	109	121	12	11	0.56	10.87	Postsecondary vocational award
43-6013	Medical secretaries	208	235	27	13	0.68	10.62	Postsecondary vocational award
43-6014	Secretaries, except legal, medical, and executive	1,133	1,127	-6	-1	1.00	11.57	Moderate-term on-the-job training
43-9011	Computer operators	26	21	-5	-19	0.44	12.34	Moderate-term on-the-job training
43-9021	Data entry keyers	71	68	-3	-4	0.43	9.00	Moderate-term on-the-job training
43-9022	Word processors and typists	53	58	5	9	0.55	8.79	Moderate-term on-the-job training
43-9031	Desktop publishers	19	23	4	21	0.60	8.12	Postsecondary vocational award
43-9041	Insurance claims and policy processing clerks	109	106	-3	-3	0.79	11.74	Moderate-term on-the-job training
43-9051	Mail clerks and mail machine operators, except postal service	41	36	-5	-12	0.50	9.46	Short-term on-the-job training
43-9061	Office clerks, general	1,743	1,852	109	6	1.05	9.75	Short-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
43-9111	Statistical assistants	11	11	0	0	0.91	12.68	Moderate-term on-the-job training
43-9199	Office and administrative support workers, all other	72	70	-2	-3	0.45	10.91	Short-term on-the-job training
45-1099	Supervisors, farming, fishing, and forestry workers	68	72	4	6	2.15	17.67	Work experience in a related field
45-2041	Graders and sorters, agricultural products	32	30	-2	-6	1.14	7.86	Work experience in a related field
45-2091	Agricultural equipment operators	51	60	9	18	1.32	8.08	Moderate-term on-the-job training
45-2092	Farmworkers and laborers, crop, nursery, and greenhouse	557	664	107	19	1.47	9.05	Short-term on-the-job training
45-2093	Farmworkers, farm and ranch animals	69	80	11	16	1.37	9.83	Short-term on-the-job training
45-2099	Agricultural workers, all other	16	18	2	13	1.27	8.42	Short-term on-the-job training
45-3011	Fishers and related fishing workers	26	20	-6	-23	0.55	6.55	Moderate-term on-the-job training
45-4011	Forest and conservation workers	11	11	0	0	1.43	9.75	Moderate-term on-the-job training
45-4021	Fallers	51	34	-17	-33	5.21	11.13	Moderate-term on-the-job training
45-4022	Logging equipment operators	115	108	-7	-6	5.71	12.87	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
45-4023	Log graders and scalers	19	18	-1	-5	2.35	13.92	Moderate-term on-the-job training
45-4029	Logging workers, all other	17	16	-1	-6	1.94	14.35	Moderate-term on-the-job training
47-1011	First-line supervisors/managers of construction trades and extraction workers	668	773	105	16	1.24	15.53	Work experience in a related field
47-2021	Brickmasons and blockmasons	55	60	5	9	0.77	12.79	Long-term on-the-job training
47-2022	Stonemasons	28	35	7	25	1.04	10.09	Long-term on-the-job training
47-2031	Carpenters	797	960	163	20	0.98	10.89	Long-term on-the-job training
47-2041	Carpet installers	25	31	6	24	0.81	9.85	Moderate-term on-the-job training
47-2042	Floor layers, except carpet, wood, and hard tiles	21	26	5	24	1.02	9.64	Moderate-term on-the-job training
47-2043	Floor sanders and finishers	35	42	7	20	1.93	10.05	Moderate-term on-the-job training
47-2044	Tile and marble setters	54	64	10	19	1.34	11.16	Long-term on-the-job training
47-2051	Cement masons and concrete finishers	157	176	19	12	1.47	13.84	Moderate-term on-the-job training
47-2053	Terrazzo workers and finishers	14	16	2	14	1.89	11.16	Long-term on-the-job training
47-2061	Construction laborers	1,007	1,142	135	13	1.38	10.54	Moderate-term on-the-job training



SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
47-2071	Paving, surfacing, and tamping equipment operators	104	101	-3	-3	3.16	13.46	Moderate-term on-the-job training
47-2072	Pile-driver operators	30	35	5	17	1.84	10.63	Moderate-term on-the-job training
47-2073	Operating engineers and other construction equipment operators	363	398	35	10	1.62	13.40	Moderate-term on-the-job training
47-2081	Drywall and ceiling tile installers	59	68	9	15	0.73	10.94	Moderate-term on-the-job training
47-2082	Tapers	28	34	6	21	0.84	10.01	Moderate-term on-the-job training
47-2111	Electricians	313	271	-42	-13	0.83	13.79	Long-term on-the-job training
47-2121	Glaziers	35	42	7	20	1.17	10.97	Long-term on-the-job training
47-2131	Insulation workers, floor, ceiling, and wall	17	19	2	12	1.06	11.75	Moderate-term on-the-job training
47-2132	Insulation workers, mechanical	15	17	2	13	0.87	11.09	Moderate-term on-the-job training
47-2141	Painters, construction and maintenance	340	407	67	20	1.23	10.89	Moderate-term on-the-job training
47-2151	Pipelayers	74	85	11	15	1.32	10.82	Moderate-term on-the-job training
47-2152	Plumbers, pipefitters, and steamfitters	325	370	45	14	1.30	13.96	Long-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
47-2161	Plasterers and stucco masons	11	13	2	18	0.41	10.84	Long-term on-the-job training
47-2171	Reinforcing iron and rebar workers	13	15	2	15	0.85	13.58	Long-term on-the-job training
47-2181	Roofers	130	141	11	8	1.44	10.17	Moderate-term on-the-job training
47-2211	Sheet metal workers	83	96	13	16	0.95	11.56	Long-term on-the-job training
47-2221	Structural iron and steel workers	52	63	11	21	1.41	16.69	Long-term on-the-job training
47-3011	Helpers, brickmasons, blockmasons, stonemasons, and tile and marble setters	28	28	0	0	1.01	9.48	Short-term on-the-job training
47-3012	Helpers, carpenters	85	94	9	11	2.04	9.40	Short-term on-the-job training
47-3013	Helpers, electricians	55	28	-27	-49	1.05	8.95	Short-term on-the-job training
47-3014	Helpers, painters, paperhangers, plasterers, and stucco masons	19	19	0	0	1.71	8.02	Short-term on-the-job training
47-3015	Helpers, pipelayers, plumbers, pipefitters, and steamfitters	108	121	13	12	2.61	9.87	Short-term on-the-job training
47-3016	Helpers, roofers	14	13	-1	-7	1.28	7.53	Short-term on-the-job training
47-3019	Helpers, construction trades, all other	22	25	3	14	1.49	8.93	Short-term on-the-job training
47-4011	Construction and building inspectors	43	49	6	14	0.64	14.19	Work experience in a related field
47-4031	Fence erectors	17	21	4	24	0.94	9.47	Moderate-term on-the-job training
47-4041	Hazardous materials removal workers	43	65	22	51	1.82	16.56	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
47-4051	Highway maintenance workers	14	15	1	7	0.19	10.82	Moderate-term on-the-job training
47-4071	Septic tank servicers and sewer pipe cleaners	24	29	5	21	1.55	10.94	Moderate-term on-the-job training
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	494	509	15	3	2.06	22.82	Work experience in a related field
49-2011	Computer, automated teller, and office machine repairers	40	48	8	20	0.45	12.14	Postsecondary vocational award
49-2022	Telecommunications equipment installers and repairers, except line installers	87	107	20	23	0.78	23.42	Long-term on-the-job training
49-2092	Electric motor, power tool, and related repairers	10	11	1	10	0.72	12.05	Postsecondary vocational award
49-2094	Electrical and electronics repairers, commercial and industrial equipment	57	58	1	2	1.43	17.56	Postsecondary vocational award
49-2095	Electrical and electronics repairers, powerhouse, substation, and relay	20	21	1	5	1.56	23.49	Postsecondary vocational award
49-2097	Electronic home entertainment equipment installers and repairers	27	30	3	11	0.90	11.92	Postsecondary vocational award
49-2098	Security and fire alarm systems installers	19	20	1	5	0.51	10.41	Postsecondary vocational award
49-3011	Aircraft mechanics and service technicians	20	20	0	0	0.31	18.26	Postsecondary vocational award
49-3021	Automotive body and related repairers	96	102	6	6	1.00	12.83	Long-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
49-3022	Automotive glass installers and repairers	14	15	1	7	1.15	13.28	Long-term on-the-job training
49-3023	Automotive service technicians and mechanics	505	544	39	8	1.15	11.45	Postsecondary vocational award
49-3031	Bus and truck mechanics and diesel engine specialists	159	190	31	19	1.08	13.45	Postsecondary vocational award
49-3041	Farm equipment mechanics	27	34	7	26	1.41	14.43	Postsecondary vocational award
49-3042	Mobile heavy equipment mechanics, except engines	80	84	4	5	1.14	14.90	Postsecondary vocational award
49-3051	Motorboat mechanics	15	19	4	27	0.79	9.45	Long-term on-the-job training
49-3052	Motorcycle mechanics	17	21	4	24	1.00	9.68	Long-term on-the-job training
49-3053	Outdoor power equipment and other small engine mechanics	26	30	4	15	1.22	9.77	Moderate-term on-the-job training
49-3093	Tire repairers and changers	31	34	3	10	0.61	8.54	Short-term on-the-job training
49-9012	Control and valve installers and repairers, except mechanical door	26	27	1	4	1.06	18.56	Moderate-term on-the-job training
49-9021	Heating, air conditioning, and refrigeration mechanics and installers	265	298	33	12	1.55	13.12	Long-term on-the-job training
49-9031	Home appliance repairers	60	72	12	20	1.39	9.17	Long-term on-the-job training
49-9041	Industrial machinery mechanics	173	187	14	8	1.16	18.82	Long-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
49-9042	Maintenance and repair workers, general	1,104	1,103	-1	0	1.49	13.92	Moderate-term on-the-job training
49-9043	Maintenance workers, machinery	40	39	-1	-3	1.04	13.62	Short-term on-the-job training
49-9044	Millwrights	24	27	3	13	1.03	14.65	Long-term on-the-job training
49-9051	Electrical power-line installers and repairers	282	311	29	10	4.61	19.89	Long-term on-the-job training
49-9052	Telecommunications line installers and repairers	84	108	24	29	0.87	18.88	Long-term on-the-job training
49-9062	Medical equipment repairers	17	23	6	35	0.71	12.26	Associate's degree
49-9091	Coin, vending, and amusement machine servicers and repairers	25	26	1	4	0.77	9.13	Moderate-term on-the-job training
49-9092	Commercial divers	17	23	6	35	0.99	6.67	Moderate-term on-the-job training
49-9093	Fabric menders, except garment	26	28	2	8	1.59	8.18	Moderate-term on-the-job training
49-9094	Locksmiths and safe repairers	24	32	8	33	1.05	8.12	Moderate-term on-the-job training
49-9097	Signal and track switch repairers	19	25	6	32	1.00	7.92	Moderate-term on-the-job training
49-9098	Helpers--Installation, maintenance, and repair workers	119	136	17	14	1.51	8.65	Short-term on-the-job training
49-9099	Installation, maintenance, and repair workers, all other	31	38	7	23	0.36	10.45	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
51-1011	First-line supervisors/managers of production and operating workers	427	405	-22	-5	1.21	22.95	Work experience in a related field
51-2011	Aircraft structure, surfaces, rigging, and systems assemblers	32	28	-4	-13	1.60	17.51	Long-term on-the-job training
51-2022	Electrical and electronic equipment assemblers	41	42	1	2	0.39	11.38	Short-term on-the-job training
51-2023	Electromechanical equipment assemblers	35	42	7	20	1.08	12.94	Short-term on-the-job training
51-2031	Engine and other machine assemblers	31	41	10	32	1.61	11.11	Short-term on-the-job training
51-2041	Structural metal fabricators and fitters	36	49	13	36	0.64	13.38	Moderate-term on-the-job training
51-2091	Fiberglass laminators and fabricators	46	46	0	0	2.34	11.53	Moderate-term on-the-job training
51-2092	Team assemblers	1,148	1,163	15	1	2.07	13.77	Moderate-term on-the-job training
51-2099	Assemblers and fabricators, all other	90	76	-14	-16	0.61	10.84	Moderate-term on-the-job training
51-3011	Bakers	31	34	3	10	0.39	8.49	Long-term on-the-job training
51-3021	Butchers and meat cutters	67	60	-7	-10	0.96	10.80	Long-term on-the-job training
51-3022	Meat, poultry, and fish cutters and trimmers	102	76	-26	-25	1.19	8.26	Short-term on-the-job training
51-3023	Slaughterers and meat packers	61	45	-16	-26	1.15	6.83	Moderate-term on-the-job training
51-3092	Food batchmakers	37	31	-6	-16	0.67	9.65	Short-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
51-3093	Food cooking machine operators and tenders	15	12	-3	-20	0.72	9.04	Short-term on-the-job training
51-4011	Computer-controlled machine tool operators, metal and plastic	199	228	29	15	2.81	13.44	Moderate-term on-the-job training
51-4012	Numerical tool and process control programmers	13	14	1	8	1.41	17.30	Long-term on-the-job training
51-4021	Extruding and drawing machine setters, operators, and tenders, metal and plastic	116	96	-20	-17	2.56	12.41	Moderate-term on-the-job training
51-4022	Forging machine setters, operators, and tenders, metal and plastic	37	34	-3	-8	2.58	13.00	Moderate-term on-the-job training
51-4023	Rolling machine setters, operators, and tenders, metal and plastic	30	35	5	17	1.64	13.82	Moderate-term on-the-job training
51-4031	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	353	336	-17	-5	3.05	14.62	Moderate-term on-the-job training
51-4032	Drilling and boring machine tool setters, operators, and tenders, metal and plastic	39	43	4	10	2.30	12.30	Moderate-term on-the-job training
51-4033	Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic	55	55	0	0	1.19	13.33	Moderate-term on-the-job training
51-4034	Lathe and turning machine tool setters, operators, and tenders, metal and plastic	46	49	3	7	1.61	13.85	Moderate-term on-the-job training
51-4035	Milling and planing machine setters, operators, and tenders, metal and plastic	15	15	0	0	1.09	12.17	Moderate-term on-the-job training
51-4041	Machinists	139	157	18	13	0.66	15.56	Long-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
51-4072	Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic	208	167	-41	-20	2.92	11.63	Moderate-term on-the-job training
51-4081	Multiple machine tool setters, operators, and tenders, metal and plastic	61	71	10	16	1.38	12.97	Moderate-term on-the-job training
51-4111	Tool and die makers	77	87	10	13	1.80	18.39	Long-term on-the-job training
51-4121	Welders, cutters, solderers, and brazers	301	375	74	25	1.43	13.14	Long-term on-the-job training
51-4122	Welding, soldering, and brazing machine setters, operators, and tenders	63	76	13	21	1.61	12.62	Moderate-term on-the-job training
51-4191	Heat treating equipment setters, operators, and tenders, metal and plastic	30	29	-1	-3	2.40	12.80	Moderate-term on-the-job training
51-4193	Plating and coating machine setters, operators, and tenders, metal and plastic	21	23	2	10	0.96	10.91	Moderate-term on-the-job training
51-4199	Metal workers and plastic workers, all other	22	26	4	18	1.03	10.98	Moderate-term on-the-job training
51-5011	Bindery workers	19	17	-2	-11	0.60	9.47	Short-term on-the-job training
51-5021	Job printers	24	25	1	4	0.96	12.20	Long-term on-the-job training
51-5022	Prepress technicians and workers	16	14	-2	-13	0.50	10.26	Postsecondary vocational award
51-5023	Printing machine operators	34	30	-4	-12	0.33	11.53	Moderate-term on-the-job training



SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
51-6011	Laundry and dry-cleaning workers	223	231	8	4	1.55	8.09	Moderate-term on-the-job training
51-6021	Pressers, textile, garment, and related materials	35	30	-5	-14	0.98	7.60	Short-term on-the-job training
51-6031	Sewing machine operators	138	125	-13	-9	1.29	8.88	Moderate-term on-the-job training
51-6041	Shoe and leather workers and repairers	13	16	3	23	0.81	7.32	Long-term on-the-job training
51-6051	Sewers, hand	39	46	7	18	1.05	7.41	Short-term on-the-job training
51-6052	Tailors, dressmakers, and custom sewers	39	47	8	21	0.77	7.27	Long-term on-the-job training
51-6061	Textile bleaching and dyeing machine operators and tenders	46	42	-4	-9	5.24	13.00	Moderate-term on-the-job training
51-6062	Textile cutting machine setters, operators, and tenders	84	99	15	18	7.78	10.03	Moderate-term on-the-job training
51-6063	Textile knitting and weaving machine setters, operators, and tenders	94	109	15	16	5.95	14.99	Long-term on-the-job training
51-6064	Textile winding, twisting, and drawing out machine setters, operators, and tenders	113	123	10	9	6.31	13.71	Moderate-term on-the-job training
51-6091	Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	69	47	-22	-32	8.21	13.73	Moderate-term on-the-job training
51-6093	Upholsterers	36	44	8	22	0.75	8.08	Long-term on-the-job training
51-6099	Textile, apparel, and furnishings workers, all other	35	31	-4	-11	3.70	14.03	Short-term on-the-job training
51-7011	Cabinetmakers and bench carpenters	81	84	3	4	1.20	10.88	Long-term on-the-job training


SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
51-7021	Furniture finishers	22	25	3	14	0.96	8.94	Long-term on-the-job training
51-7041	Sawing machine setters, operators, and tenders, wood	50	42	-8	-16	1.76	8.66	Moderate-term on-the-job training
51-7042	Woodworking machine setters, operators, and tenders, except sawing	92	102	10	11	2.14	9.40	Moderate-term on-the-job training
51-8011	Nuclear power reactor operators	17	19	2	12	3.81	24.90	Long-term on-the-job training
51-8013	Power plant operators	63	66	3	5	3.07	24.96	Long-term on-the-job training
51-8021	Stationary engineers and boiler operators	22	22	0	0	0.97	14.90	Long-term on-the-job training
51-8031	Water and liquid waste treatment plant and system operators	104	114	10	10	1.73	12.81	Long-term on-the-job training
51-8091	Chemical plant and system operators	285	200	-85	-30	11.76	17.25	Long-term on-the-job training
51-8092	Gas plant operators	16	20	4	25	1.83	17.19	Long-term on-the-job training
51-8093	Petroleum pump system operators, refinery operators, and gaugers	21	16	-5	-24	0.82	19.87	Long-term on-the-job training
51-9011	Chemical equipment operators and tenders	232	205	-27	-12	8.21	21.49	Moderate-term on-the-job training
51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	29	24	-5	-17	1.28	14.65	Moderate-term on-the-job training
51-9021	Crushing, grinding, and polishing machine setters, operators, and tenders	23	18	-5	-22	1.05	15.87	Moderate-term on-the-job training
51-9022	Grinding and polishing workers, hand	26	27	1	4	1.27	10.51	Moderate-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
51-9023	Mixing and blending machine setters, operators, and tenders	129	101	-28	-22	1.78	13.70	Moderate-term on-the-job training
51-9032	Cutting and slicing machine setters, operators, and tenders	55	46	-9	-16	1.42	12.05	Moderate-term on-the-job training
51-9041	Extruding, forming, pressing, and compacting machine setters, operators, and tenders	78	62	-16	-21	1.88	12.53	Moderate-term on-the-job training
51-9051	Furnace, kiln, oven, drier, and kettle operators and tenders	31	28	-3	-10	2.56	13.23	Moderate-term on-the-job training
51-9061	Inspectors, testers, sorters, samplers, and weighers	522	470	-52	-10	2.16	12.74	Moderate-term on-the-job training
51-9071	Jewelers and precious stone and metal workers	18	21	3	17	0.64	13.40	Postsecondary vocational award
51-9081	Dental laboratory technicians	15	16	1	7	0.63	14.43	Long-term on-the-job training
51-9083	Ophthalmic laboratory technicians	10	15	5	50	0.53	11.72	Moderate-term on-the-job training
51-9111	Packaging and filling machine operators and tenders	71	58	-13	-18	0.40	12.16	Short-term on-the-job training
51-9121	Coating, painting, and spraying machine setters, operators, and tenders	128	127	-1	-1	2.42	12.85	Moderate-term on-the-job training
51-9122	Painters, transportation equipment	33	30	-3	-9	1.14	13.99	Long-term on-the-job training
51-9123	Painting, coating, and decorating workers	31	31	0	0	1.62	9.73	Short-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
51-9131	Photographic process workers	15	11	-4	-27	0.93	10.36	Moderate-term on-the-job training
51-9132	Photographic processing machine operators	39	28	-11	-28	1.31	9.27	Short-term on-the-job training
51-9141	Semiconductor processors	25	17	-8	-32	1.18	13.93	Associate's degree
51-9191	Cementing and gluing machine operators and tenders	14	13	-1	-7	1.29	11.10	Moderate-term on-the-job training
51-9192	Cleaning, washing, and metal pickling equipment operators and tenders	15	11	-4	-27	1.31	11.72	Moderate-term on-the-job training
51-9195	Molders, shapers, and casters, except metal and plastic	39	45	6	15	1.58	11.86	Moderate-term on-the-job training
51-9196	Paper goods machine setters, operators, and tenders	87	76	-11	-13	1.63	14.02	Moderate-term on-the-job training
51-9197	Tire builders	95	88	-7	-7	8.36	13.03	Moderate-term on-the-job training
51-9198	Helpers--Production workers	135	131	-4	-3	0.56	10.50	Short-term on-the-job training
51-9199	Production workers, all other	107	88	-19	-18	0.79	10.50	Moderate-term on-the-job training
53-1021	First-line supervisors/managers of helpers, laborers, and material movers, hand	101	110	9	9	1.01	16.20	Work experience in a related field
53-1031	First-line supervisors/managers of transportation and material-moving machine and vehicle operators	64	74	10	16	0.55	19.97	Work experience in a related field

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
53-2012	Commercial pilots	10	12	2	20	0.50	16.61	Postsecondary vocational award
53-3011	Ambulance drivers and attendants, except emergency medical technicians	38	48	10	26	3.24	8.74	Moderate-term on-the-job training
53-3021	Bus drivers, transit and intercity	56	60	4	7	0.51	8.87	Moderate-term on-the-job training
53-3022	Bus drivers, school	251	247	-4	-2	0.97	7.68	Short-term on-the-job training
53-3031	Driver/sales workers	264	288	24	9	0.83	9.70	Short-term on-the-job training
53-3032	Truck drivers, heavy and tractor-trailer	1,171	1,426	255	22	1.19	15.12	Moderate-term on-the-job training
53-3033	Truck drivers, light or delivery services	641	717	76	12	1.07	11.26	Short-term on-the-job training
53-3041	Taxi drivers and chauffeurs	52	56	4	8	0.30	7.31	Short-term on-the-job training
53-3099	Motor vehicle operators, all other	14	15	1	7	0.32	15.32	Short-term on-the-job training
53-4019	Locomotive engineers and operators	27	31	4	15	1.07	18.87	Moderate-term on-the-job training
53-4031	Railroad conductors and yardmasters	24	30	6	25	1.46	19.99	Moderate-term on-the-job training
53-6021	Parking lot attendants	55	58	3	5	0.74	7.76	Short-term on-the-job training
53-6031	Service station attendants	29	33	4	14	0.66	12.39	Short-term on-the-job training
53-7021	Crane and tower operators	26	29	3	12	1.11	13.39	Long-term on-the-job training

SOC Code	Description	2009 Jobs	2016 Jobs	Change	% Change	Location Quotient	2009 Median Hourly Earnings (\$)	Typical Education & Experience Level
53-7032	Excavating and loading machine and dragline operators	45	51	6	13	1.21	11.37	Moderate-term on-the-job training
53-7051	Industrial truck and tractor operators	482	454	-28	-6	1.51	11.88	Short-term on-the-job training
53-7061	Cleaners of vehicles and equipment	85	93	8	9	0.46	7.89	Short-term on-the-job training
53-7062	Laborers and freight, stock, and material movers, hand	2,220	2,096	-124	-6	1.81	9.85	Short-term on-the-job training
53-7063	Machine feeders and offbearers	102	85	-17	-17	1.52	11.54	Short-term on-the-job training
53-7064	Packers and packagers, hand	392	315	-77	-20	0.98	10.77	Short-term on-the-job training
53-7072	Pump operators, except wellhead pumpers	12	11	-1	-8	0.75	13.70	Moderate-term on-the-job training
53-7081	Refuse and recyclable material collectors	158	228	70	44	1.94	11.01	Short-term on-the-job training
53-7121	Tank car, truck, and ship loaders	11	12	1	9	1.52	14.06	Moderate-term on-the-job training
53-7199	Material moving workers, all other	16	17	1	6	0.78	11.97	Moderate-term on-the-job training
		94,048	101,705	7,657	8%		\$13.37	

 at least 1.25      greater than \$13.37

Source: EMSI





South Carolina  
Department of Commerce  
1201 Main Street, Suite 1600  
Columbia, SC 29201

(800) 868-7232  
(803) 737-0400  
[www.sccommerce.com](http://www.sccommerce.com)